

**FIG. 1D**

Effect of Band Erase on BER

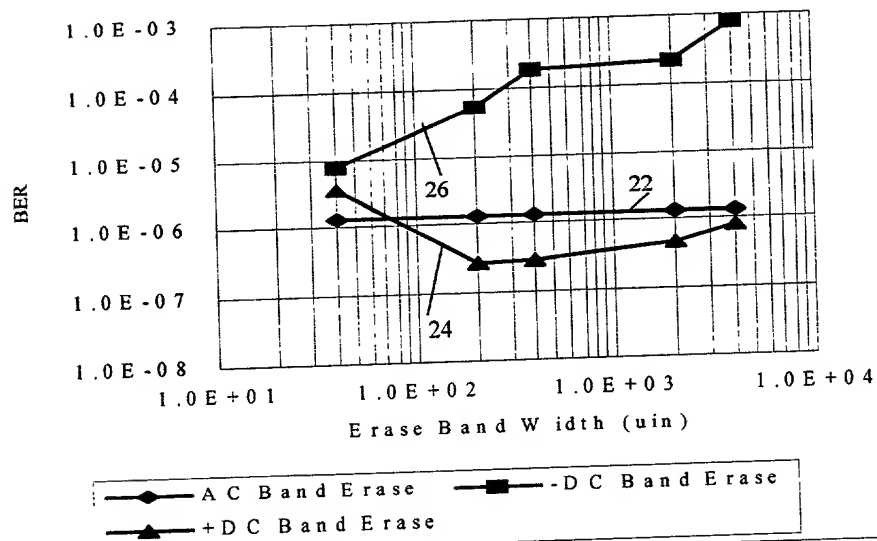
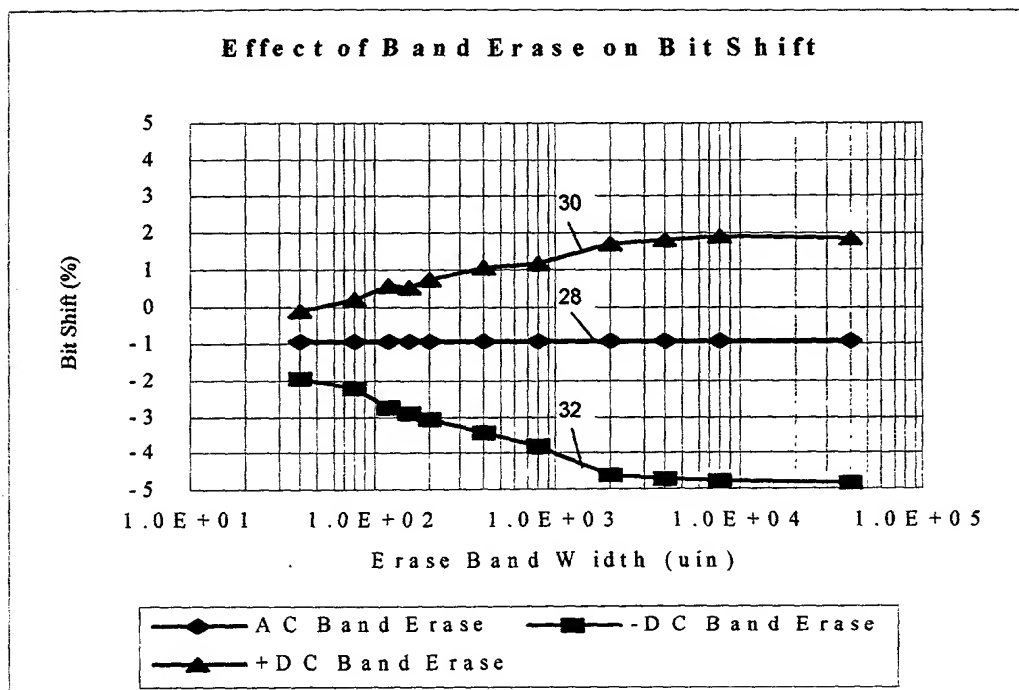
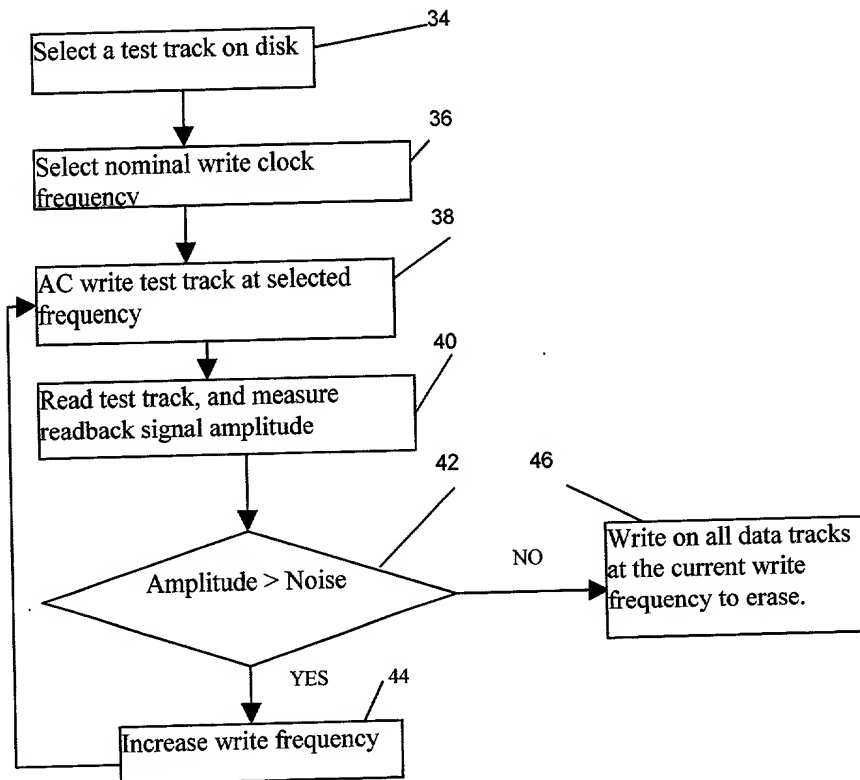


FIG. 3A - Effect of Band Erase on BER

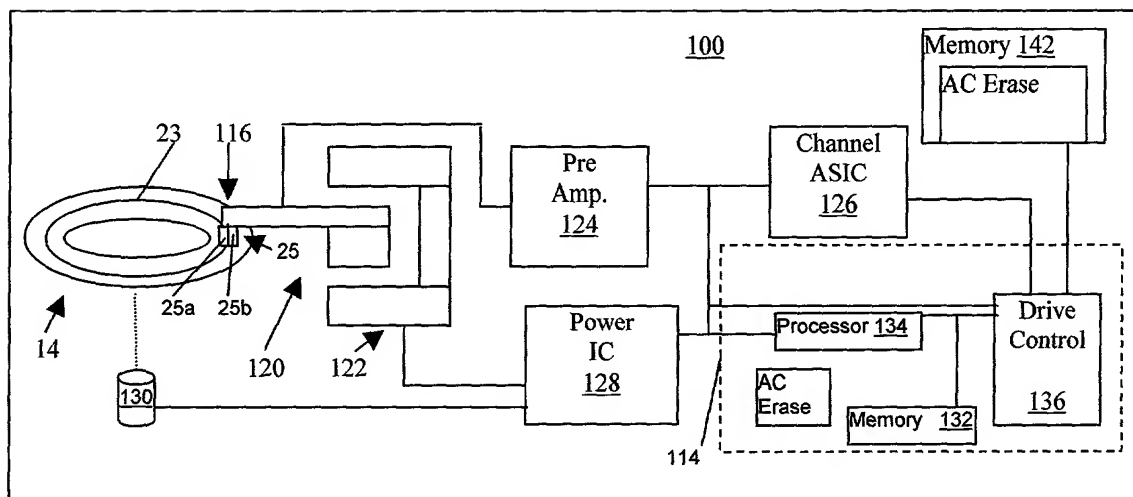
20250701 03:45:00



**FIG. 3B** - Effect of Band Erase on Transition Shift

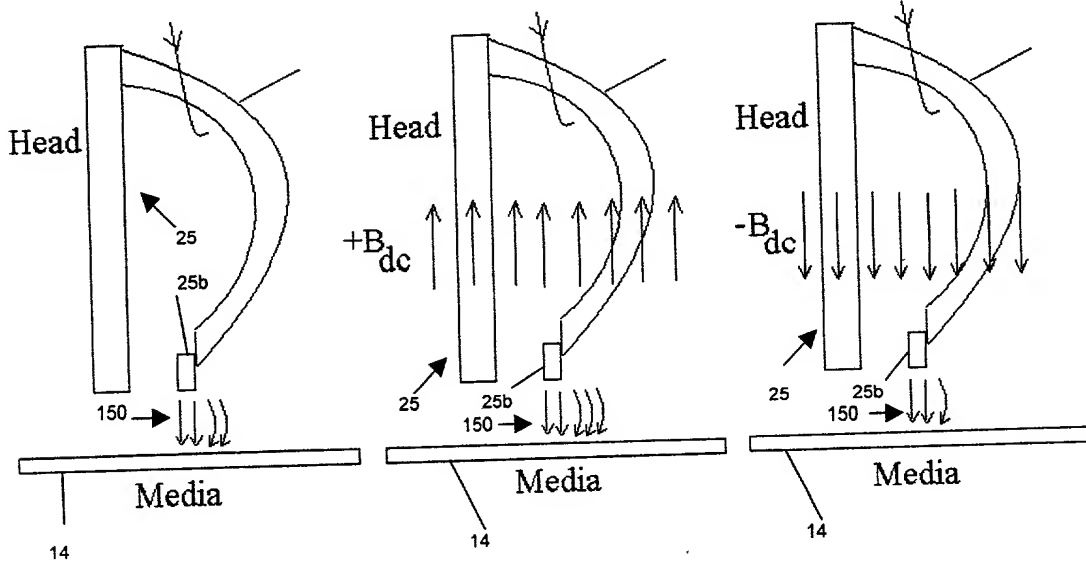


**FIG. 4A**



**FIG. 4B**

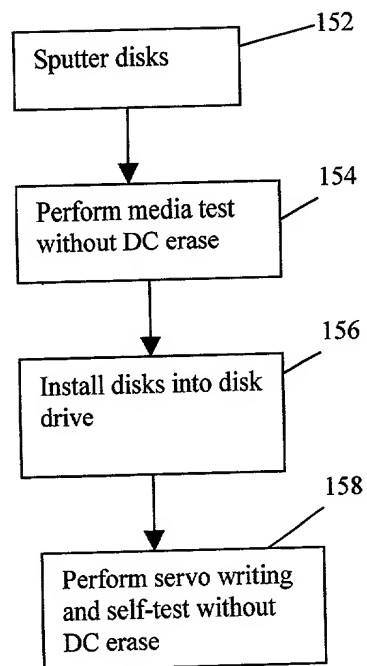
2024-03-01 10:00:00



**FIG. 4C** (AC Erase)

**FIG. 7B** (+DC Erase)

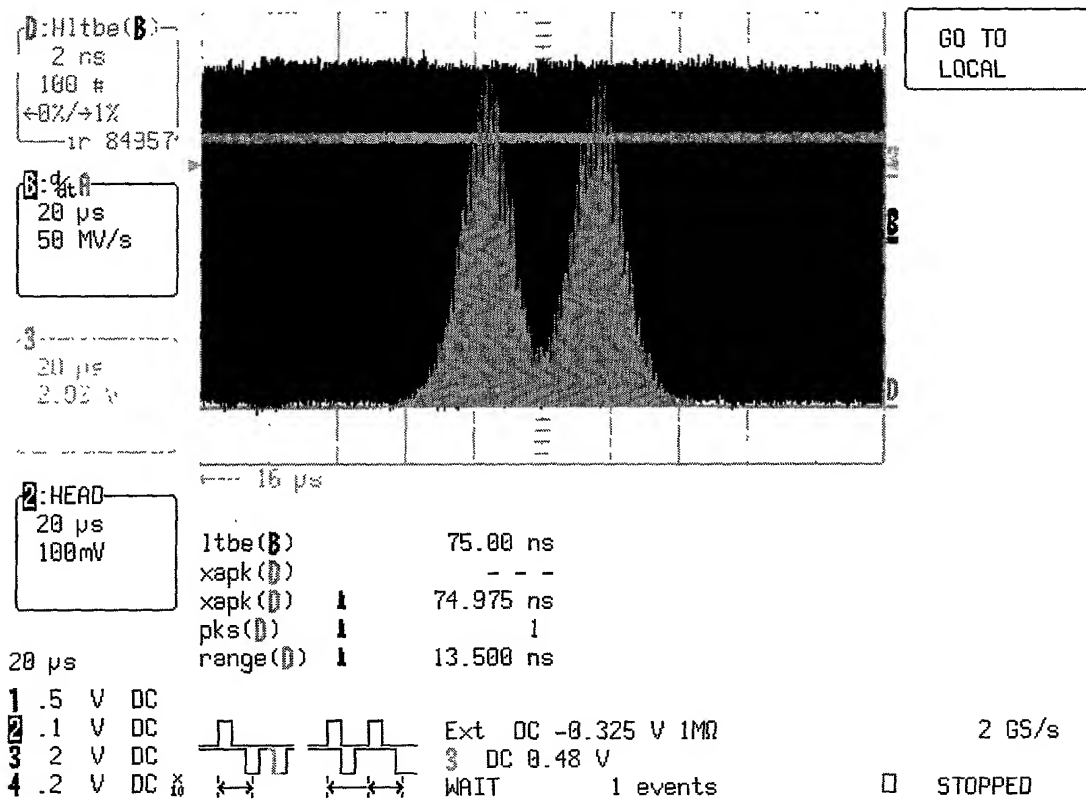
**FIG. 7C** (-DC Erase)



**FIG. 5**



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**FIG. 6A** (Prior Art) - Readback signal timing histogram of differentiated data written after a conventional DC band erase.

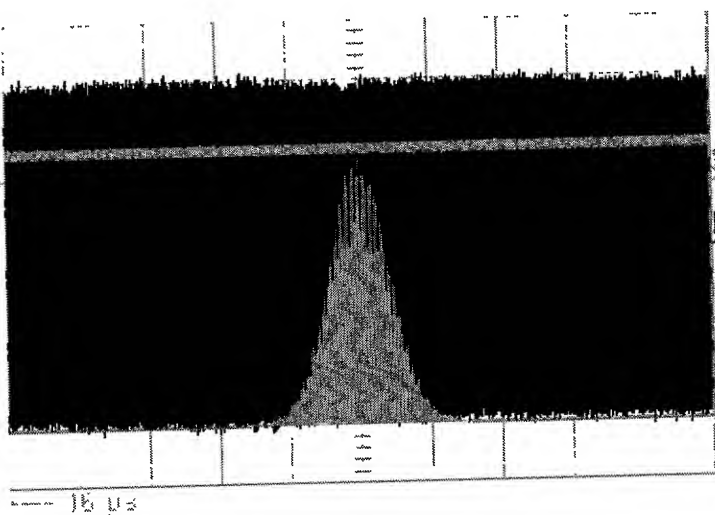
20270"5524500

D:Hitbe(B)  
2 ns  
200 #  
←0%→1%  
in 77047

B:9.4A  
20  $\mu$ s  
50 MV/s

3  
20  $\mu$ s  
1.02 V

2:HEAD  
20  $\mu$ s  
100mV

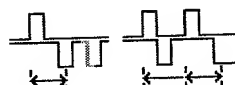


GO TO  
LOCAL

ltbe(B) 75.00 ns  
xapk(D) ---  
xapk(D) 75.028 ns  
pks(D) 1  
range(D) 11.020 ns

20  $\mu$ s

1 .5 V DC  
2 .1 V DC  
3 2 V DC  
4 .2 V DC

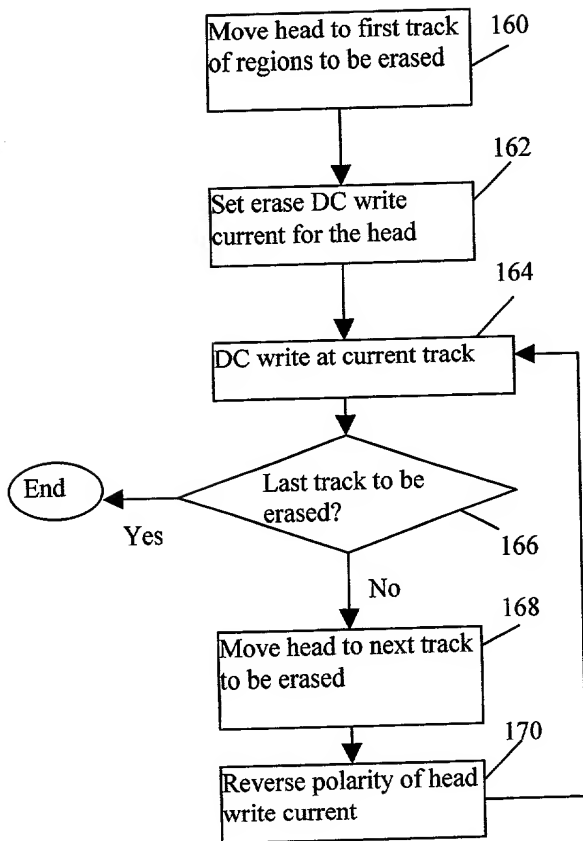


Ext DC -0.325 V 1M $\Omega$   
3 DC 0.48 V  
WAIT 1 events

2 GS/s

STOPPED

**FIG. 6B** - Read back signal measurement for a track written on as-received media from disk sputtering process without any net magnetization, wherein timing asymmetry is eliminated.



**FIG. 7A**

```
D: Hltbe(B)
  2 ns
  0.50 k#
  ←0%/→0%
  --in 140443
```

$B = dI/dt$   
20  $\mu$ s  
50 MV/s

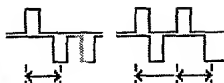
[illegible]

2: HEAD-  
20  $\mu$ s  
100mV

lthe(B)		75.00 ns
xapk(D)		- - -
xapk(D)	1	74.989 ns
pks(D)	1	1
range(D)	1	9.260 ns

20  $\mu$ s

1	.5	V	DC
2	.1	V	DC
3	.2	V	DC
4	.2	V	DC



GO TO  
LOCAL

2 GS/s

0 STOPPED

**FIG. 7D** - Measurement of data written on media preconditioned by DC erasing with alternate polarity on adjacent tracks, wherein timing asymmetry is eliminated.